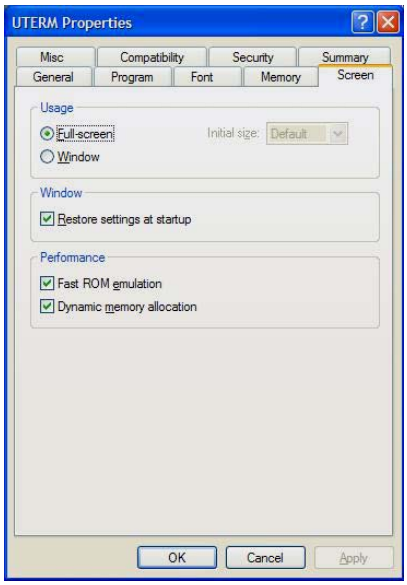
Saving Data with Wizard Gamma Counters Using UltroTerm III

The saving of data is a requirement for most users of scientific equipment. The Wizard gamma counter is no exception. The saving of data into computer files is a necessity for both archiving and further data analysis. This application note explores the use of UltroTerm III for capturing of Wizard data into PC files. UltroTerm III is a DOS based terminal program which runs in a window under various Microsoft Windows operating systems, up to and including Windows XP. UltroTerm III provides automatic opening and closing of data files, using data string recognition, and the automatic storage of the data files to a user specified location on the PC or Network.

Loading UltroTerm III

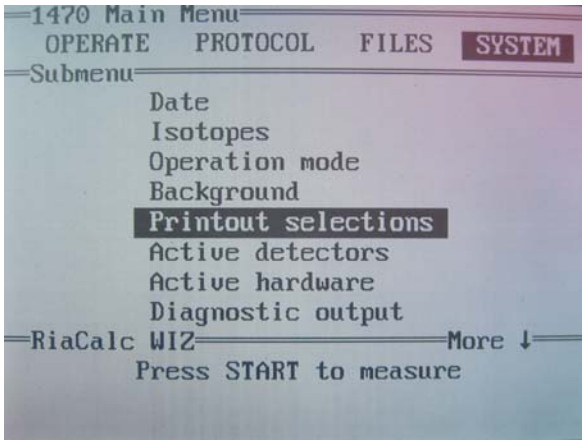
UltroTerm III (a.k.a Uterm) is loaded to the PC via the floppy disk with the command INSTALLW. Refer to the Readme .doc on the install disk. Set the follow properties for the program icon.

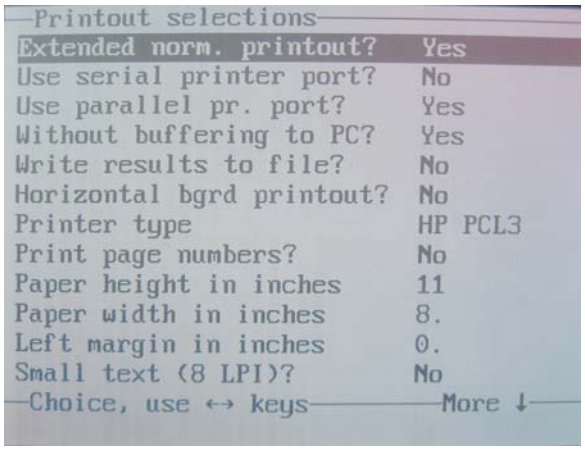


Preparing the Wizard for operation with PC

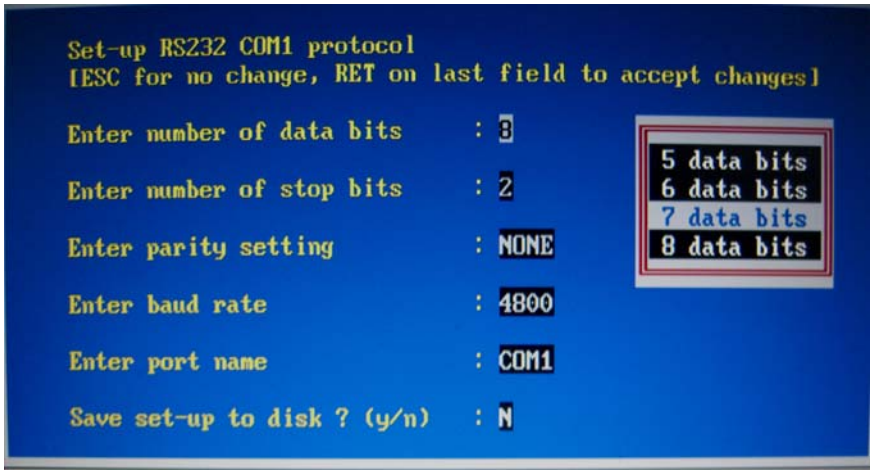
NOTE: Wizard operations will be in **BLUE** highlight and PC operations will be in **RED** highlight

Go to **SYSTEM/Printout selections/Without buffering to PC?** set to **Yes**
Exit and Save



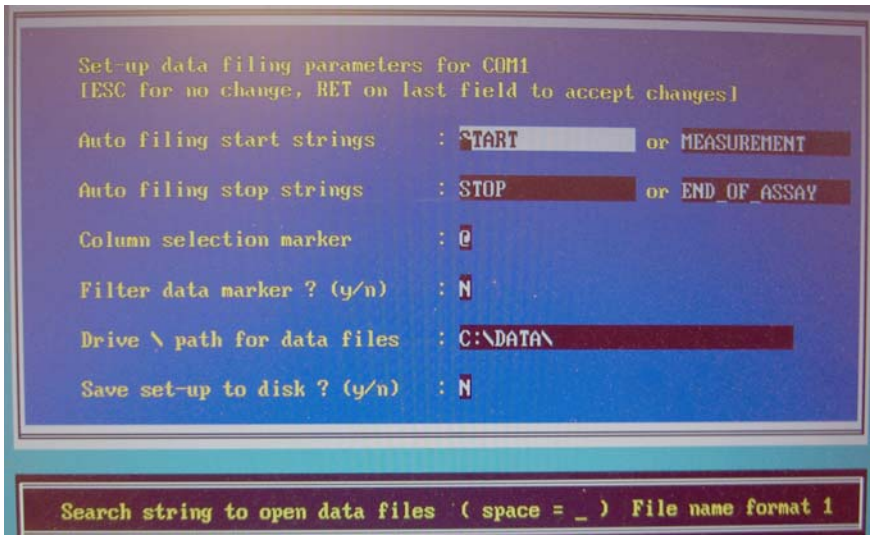

Printout selections
Extended norm. printout? Yes
Use serial printer port? No
Use parallel pr. port? Yes
Without buffering to PC? Yes
Write results to file? No
Horizontal bgrd printout? No
Printer type HP PCL3
Print page numbers? No
Paper height in inches 11
Paper width in inches 8.
Left margin in inches 0.
Small text (8 LPI)? No
Choice, use ↔ keys
More ↓

Setting up the Communication Parameters for Uterm


Set-up RS232 COM1 protocol
[ESC for no change, RET on last field to accept changes]
Enter number of data bits : 8
Enter number of stop bits : 2
Enter parity setting : NONE
Enter baud rate : 4800
Enter port name : COM1
Save set-up to disk ? (y/n) : N
5 data bits
6 data bits
7 data bits
8 data bits

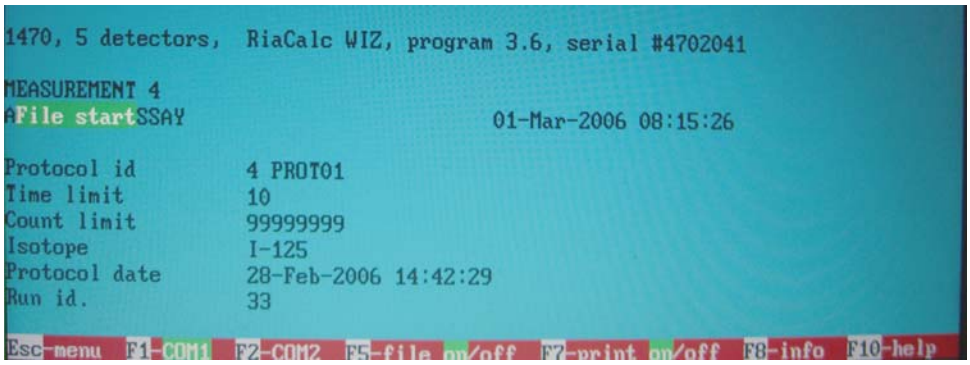
From the Uterm main screen …hit **Esc** for menu and **select RS232 parameters for Com 1**. They should be set as shown. These should match the default settings for the Wizard (found in **SYSTEM/Communication Params/PC port**). **Make sure you save set-up to disk by putting a Y on the last line.**

Setting up the file saving parameters for Uterm

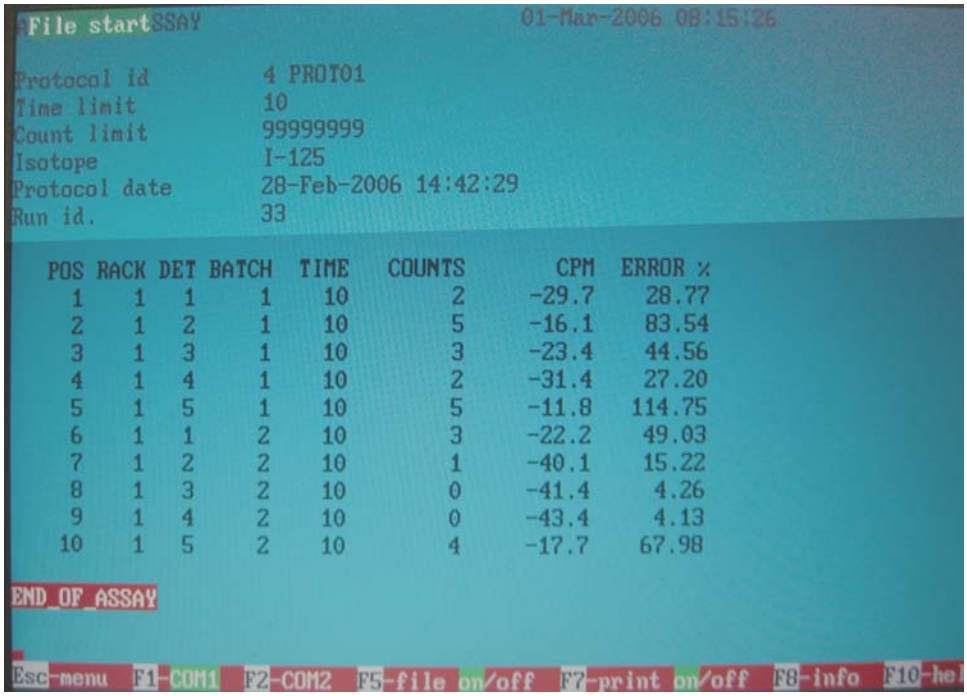

Set-up data filing parameters for COM1
[ESC for no change, RET on last field to accept changes]
Auto filing start strings : START or MEASUREMENT
Auto filing stop strings : STOP or END_OF_ASSAY
Column selection marker : @
Filter data marker ? (y/n) : N
Drive \ path for data files : C:\DATA\
Save set-up to disk ? (y/n) : N
Search string to open data files (space = _) File name format 1

Set the filling parameters as shown. All are in UPPER CASE. You may select the drive and path locations for the data files as desired. **Make sure you save set-up to disk by putting a Y on the last line.**

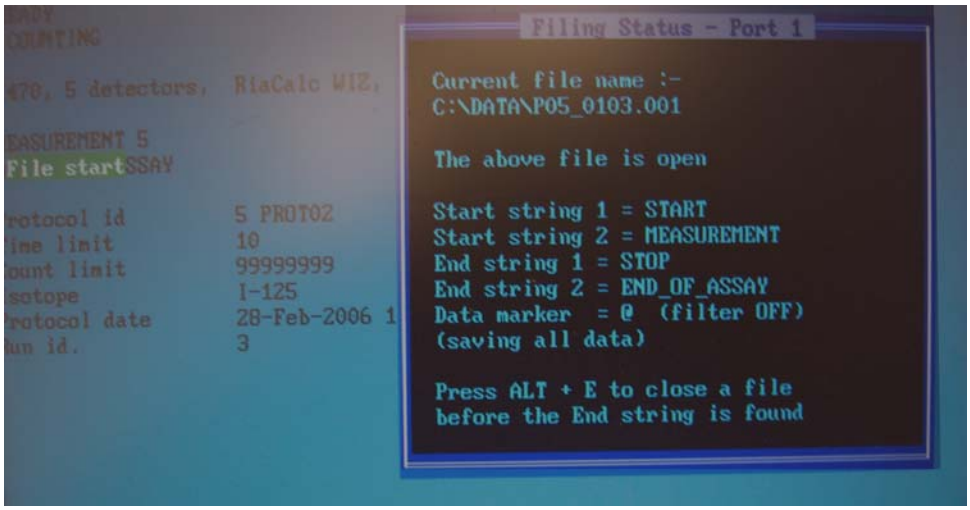
Wizard operation with Uterm



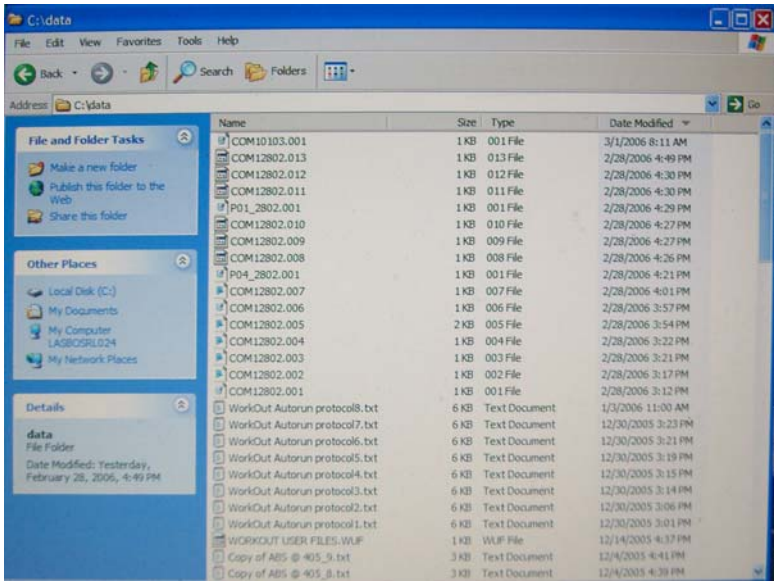
Assure the RS232 Cable is connected to PC Com port 1 and the Wizard PC port. Start the Wizard counting normally. The start string MEASUREMENT is seen and the program automatically starts the file save process.



The string END_OF_ASSAY automatically closes the file and stores it in the selected location.

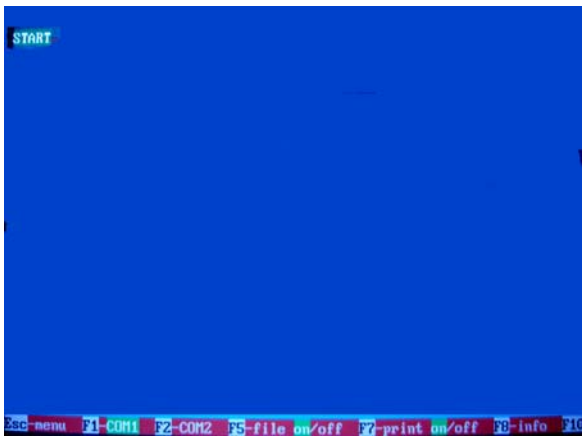

Filing Status - Port 1
Current file name :-
C:\DATA\P05_0103.001
The above file is open
Start string 1 = START
Start string 2 = MEASUREMENT
End string 1 = STOP
End string 2 = END_OF_ASSAY
Data marker = @ (filter OFF)
(saving all data)
Press ALT + E to close a file
before the End string is found

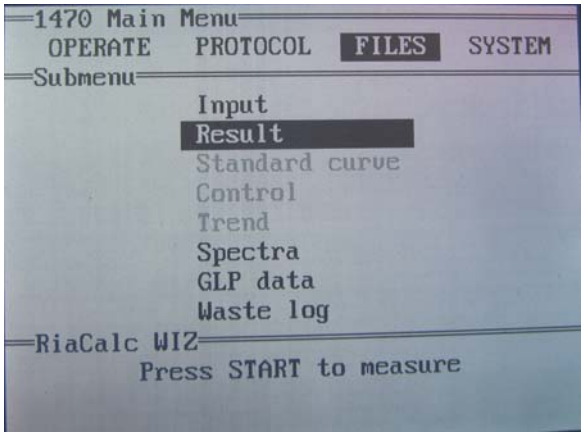
Selecting F8 after the file opens will show an info screen with the file name. Files are named by either a Format 1 or Format 2 depending upon the start string position in the filling parameters set up. Format 2 will include Pxx_ddmm.rrr
xx – protocol number
dd – day date
mm – month date
rrr – sequential run id for the day for that protocol


C:\data
File Edit View Favorites Tools Help
Back Search Folders
Address C:\data
File and Folder Tasks
Make a new folder
Publish this folder to the Web
Share this folder
Other Places
Local Disk (C:)
My Documents
My Computer
My Network Places
Details
data
File Folder
Name Size Type Date Modified
COM10103.001 1 KB 001 File 3/1/2006 8:11 AM
COM12802.013 1 KB 013 File 2/28/2006 4:49 PM
COM12802.012 1 KB 012 File 2/28/2006 4:30 PM
COM12802.011 1 KB 011 File 2/28/2006 4:30 PM
P01_2802.001 1 KB 001 File 2/28/2006 4:29 PM
COM12802.010 1 KB 010 File 2/28/2006 4:27 PM
COM12802.009 1 KB 009 File 2/28/2006 4:27 PM
COM12802.008 1 KB 008 File 2/28/2006 4:26 PM
P04_2802.001 1 KB 001 File 2/28/2006 4:21 PM
COM12802.007 1 KB 007 File 2/28/2006 4:01 PM
COM12802.006 1 KB 006 File 2/28/2006 3:57 PM
COM12802.005 2 KB 005 File 2/28/2006 3:54 PM
COM12802.004 1 KB 004 File 2/28/2006 3:22 PM
COM12802.003 1 KB 003 File 2/28/2006 3:21 PM
COM12802.002 1 KB 002 File 2/28/2006 3:17 PM
COM12802.001 1 KB 001 File 2/28/2006 3:12 PM
WorkOut Autorun protocol8.txt 6 KB Text Document 1/3/2006 11:00 AM
WorkOut Autorun protocol7.txt 6 KB Text Document 12/30/2005 3:23 PM
WorkOut Autorun protocol6.txt 6 KB Text Document 12/30/2005 3:21 PM
WorkOut Autorun protocol5.txt 6 KB Text Document 12/30/2005 3:19 PM
WorkOut Autorun protocol4.txt 6 KB Text Document 12/30/2005 3:15 PM
WorkOut Autorun protocol3.txt 6 KB Text Document 12/30/2005 3:14 PM
WorkOut Autorun protocol2.txt 6 KB Text Document 12/30/2005 3:06 PM
WorkOut Autorun protocol1.txt 6 KB Text Document 12/30/2005 3:01 PM
WORKOUT USER FILES.WUF 1 KB WUF File 12/14/2005 4:37 PM
Copy of ABS @ 405_9.txt 3 KB Text Document 12/4/2005 4:41 PM
Copy of ABS @ 405_8.txt 3 KB Text Document 12/4/2005 4:39 PM

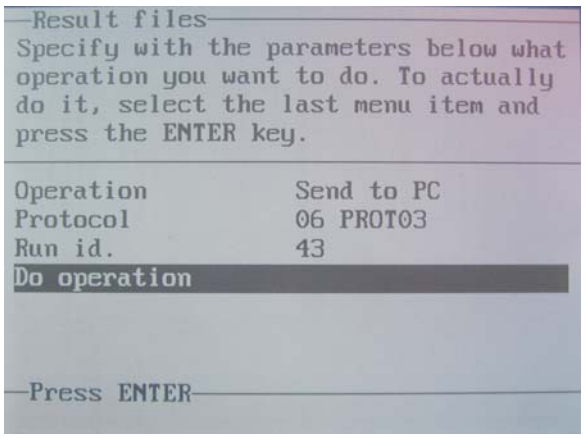
Format 1 files are named Com1ddmm.rrr with dd, mm, rrr as above. See the example files to the left.

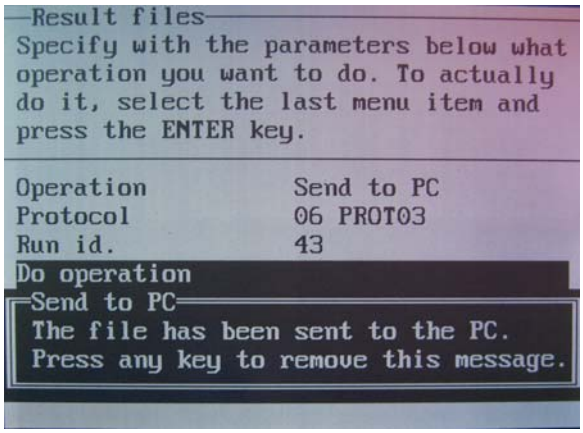
Saving Result, Spectrum and other "Send to PC" files

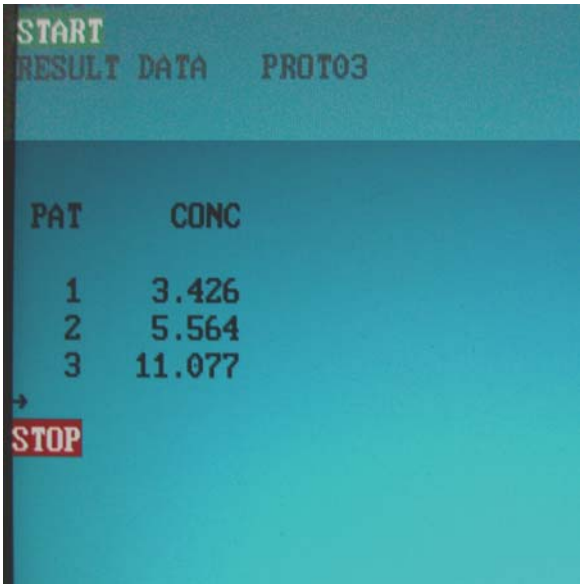




The file saving process may be started manually by hitting **<ENTER>** key on the PC which will show READY on the screen. Then type in the Format 1 start string **START** ....this will be highlighted to show the opening of the file (you can check with F8). You will then go to the Wizard counter and Select **FILES/Result**

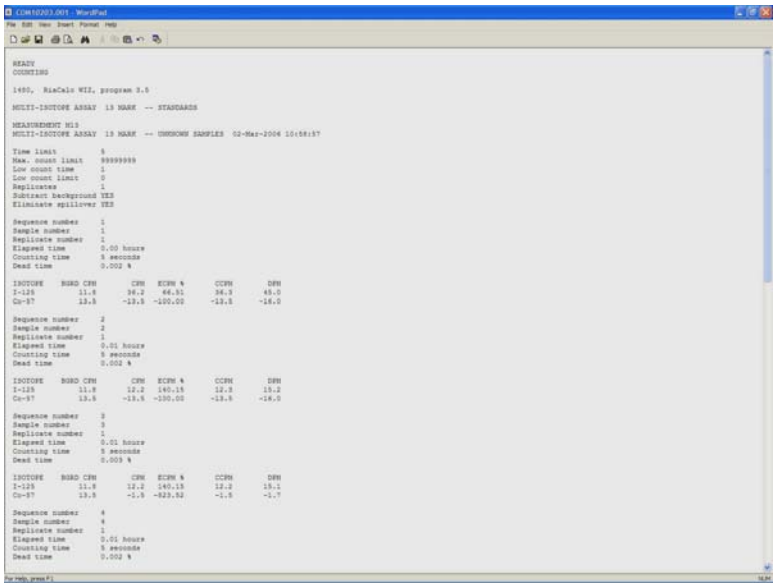

Result files
Specify with the parameters below what operation you want to do. To actually do it, select the last menu item and press the ENTER key.
Operation Send to PC
Protocol 06 PROT03
Run id. 43
Do operation
Press ENTER

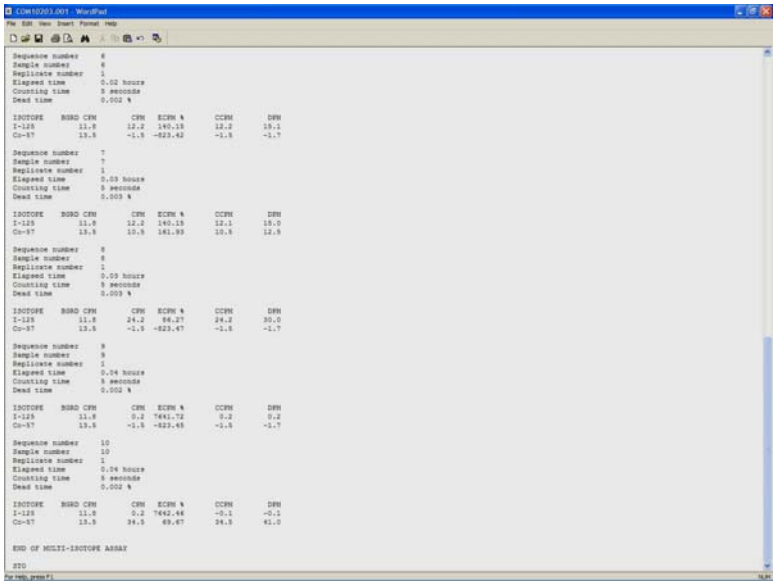

Result files
Specify with the parameters below what operation you want to do. To actually do it, select the last menu item and press the ENTER key.
Operation Send to PC
Protocol 06 PROT03
Run id. 43
Do operation
Send to PC
The file has been sent to the PC.
Press any key to remove this message.

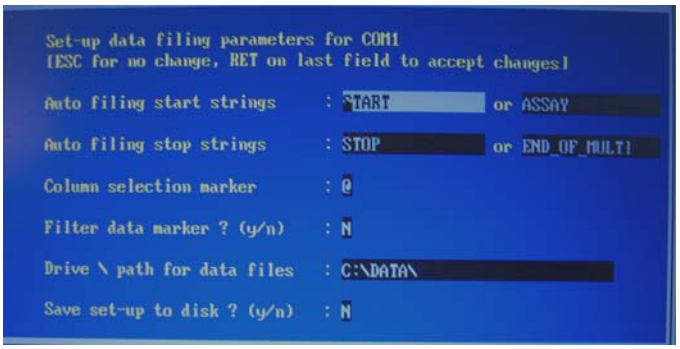


Select the **Operation** as **Send to PC** …. Select the **Protocol** and **Run id** of the file you desire and then highlight and enter **Do operation**. You will get the message that the file has been sent. On the PC screen you will see the view on the left. You then type in **STOP** from the PC keyboard to close and store the file.

Wizard 1480 MIA Operation






Set-up data filing parameters for COM1
[ESC for no change, RET on last field to accept changes]
Auto filing start strings : START or ASSAY
Auto filing stop strings : STOP or END_OF_MULTI
Column selection marker : @
Filter data marker ? (y/n) : N
Drive \ path for data files : C:\DATA\
Save set-up to disk ? (y/n) : N

Looking at the raw output from the MIA program it appears that ASSAY would be the best start string for MIA protocols. Likewise END_OF_MULTI appears to be the best stop string. It would be possible to start and stop the process manually also by typing in the Format 1 START and STOP, however the saved files would not then have the protocol number in the file name.